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# Spreading the Wealth: Unveiling the Butter-PWR Connection

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## Abstract

This paper delves into the seemingly inexplicable relationship between butter consumption and the stock price of Quanta Services (PWR). While one might be tempted to dismiss the idea of any correlation as mere conspiracy churn-theories, our rigorous analysis using USDA butter consumption data paired with LSEG Analytics (Refinitiv) stock price data casts new light on the buttery, yet financially potent, topic. Our findings reveal a surprisingly strong positive correlation, with a coefficient of 0.8474648 and p-value of less than 0.01 over the time period from 2002 to 2021. Through this study, we aim to butter up the financial world with insights that may initially seem hard to swallow. Our results not only showcase the pecan-tly butter-PWR relationship, but also highlight the significance of considering unex-peck-ted factors in market analysis. This research, while lighthearted in its presentation, brings to the forefront the potential dairy-lectable market influences that may have been overlooked. So, grab some popcorn and a tub of butter as we dive into the slippery, yet intriguing, world of butter-fueled stock price movement.

## 1. Introduction

The world of financial markets is often characterized by complexity and unpredictability. As researchers, it is our duty to peel back the layers of obscurity and shed light on the perplexing connections that underlie stock price movements. In this pursuit, we have stumbled upon an unlikely pair - butter consumption and the stock price of Quanta Services (PWR). While the initial reaction to such an association may be one of incredulity, it is precisely the improbable nature of this correlation that piqued our interest.

Historically, the financial sector has been notoriously averse to incorporating dairy products into its economic models. However, as we confront the bewildering dance between butter and PWR stock prices, it becomes increasingly clear that the creamy texture of financial analysis can be enhanced by a dash of culinary curiosity. While some may view this endeavor as trivial or mere lipids of imagination, we contend that exploring unorthodox relationships holds the potential to churn out truly enlightening insights.

Our study, featuring a thorough analysis of USDA butter consumption data and LSEG Analytics (Refinitiv) stock price data, seeks to bring clarity to this enigmatic rapport. We endeavor to peel away the layers of doubt and uncover the buttery truth that seems to linger beneath the surface of stock price volatilities. In doing so, we hope to savor the flavor

of unanticipated market dynamics and perhaps even generate a few laughs along the way.

It is our firm belief that this investigation into the butter-PWR nexus will not only enrich the financial research landscape but also add a sprinkle of whimsy to the otherwise austere realm of market analysis. After all, as we delve into the interplay of creamy indulgence and stock market performance, we might just discover that the not-so-hidden costs of butter are more than mere expenses – they may be key ingredients in the recipe for understanding market behavior. So, let us butter our bread with knowledge and embark on this lighthearted yet rigorously calibrated exploration into the intriguing symbiosis of butter consumption and stock prices.

## 2. Literature Review

In "Exploring Unlikely Market Correlations: A Comprehensive Analysis," Smith and Doe present a comprehensive examination of unexpected correlations in financial markets, highlighting the potential for serendipitous discoveries when exploring unorthodox relationships. Our investigation of the butter-PWR connection is in line with their assertion, as we strive to uncover the underlying mechanisms of this seemingly paradoxical association.

Additionally, Jones et al., in "Unconventional-Factor Economics: Embracing the Quirky," advocate for a more holistic approach to economic analysis, emphasizing the value of incorporating unconventional factors into market research. Our study aligns with their premise, as we delve into the uncharted territory of butter consumption and its peculiar relationship with the stock price of Quanta Services (PWR).

Building upon the foundation laid by these academic works, we turn our attention to non-fiction literature that provides insights into economic dynamics and behavioral patterns. "Freakonomics" by Steven D. Levitt and Stephen J. Dubner offers an unconventional perspective on economic phenomena, encouraging readers to reexamine assumptions and seek out unexpected connections – a sentiment that resonates with our exploration of the butter-PWR nexus. Similarly, "Predictably

Irrational" by Dan Ariely challenges conventional economic theories, prompting us to consider the irrational, yet influential, factors at play in market behavior.

In the realm of fiction, "The Butter Battle Book" by Dr. Seuss, though seemingly unrelated to financial markets, serves as a whimsical reminder of the potential for unexpected conflicts and resolutions – a parallel to the surprising correlation we have uncovered. Furthermore, "The Cheese Monkeys" by Chip Kidd, while centered on art and design, weaves a narrative that underscores the significance of unconventional thinking and unanticipated connections, themes that echo throughout our investigation of the butter-PWR relationship.

On a more lighthearted note, the television series "The Great British Bake Off" provides an amusing backdrop for our research, reminding us of the delightful and sometimes unpredictable nature of culinary endeavors. Likewise, the financial drama "Billions" offers a fictional portrayal of high-stakes investment strategies, serving as a source of entertainment and inspiration as we navigate the intriguing interplay between butter consumption and stock prices.

As we wade through the diverse reservoirs of literature and media, our journey into the buttery depths of market influence is not only educational but also infused with a generous dollop of unexpected humor and whimsy. In the pursuit of unraveling the butter-PWR connection, we embrace the generosity of laughter and the richness of unexpected insights, recognizing that sometimes, the most extraordinary discoveries emerge from the unlikeliest of sources.

## 3. Methodology

To unravel the mysterious connection between butter consumption and Quanta Services' (PWR) stock price, we embarked on an ambitious quest that required the delicate balance of analytical rigor and a touch of whimsy. Our research began by sourcing data from the United States Department of Agriculture (USDA) for butter consumption figures. We then complemented this dairy-centric approach by obtaining stock price data for Quanta Services

(PWR) from the London Stock Exchange Group (LSEG) Analytics (Refinitiv).

The first step in our methodology involved churning through copious amounts of historical butter consumption data, dating back to 2002. The USDA provided us with detailed insights into the per capita butter consumption in the United States, enabling us to gauge the fluctuations in this vital ingredient of culinary indulgence over the years. As for the stock price data, we meticulously extracted daily closing prices for Quanta Services (PWR), covering the same time span of 2002 to 2021.

Once we had assembled this delectable dataset, we proceeded to blend the two seemingly incongruent elements – butter consumption and stock prices – using advanced statistical techniques. The statistical analysis involved a complex recipe of correlation assessments, time series modeling, and volatility estimations. The goal of this analytical smorgasbord was to stir up a comprehensive understanding of the relationship between butter consumption and PWR stock prices, all while avoiding any likelihood of a statistical soufflé collapse.

In order to assess the statistical significance and strength of the butter-PWR entanglement, we employed various quantitative tools. The Pearson correlation coefficient was instrumental in quantifying the degree of association between butter consumption and PWR stock prices, and we sipped the tantalizing nectar of statistical significance by calculating the p-value for this correlation. Here, it was imperative to ensure that our findings were not just a mere fluke – after all, we were not in the business of producing half-baked results.

Moreover, we sautéed the dataset in a hedonic regression framework to disentangle the myriad factors that could potentially confound the butter-PWR relationship. This approach allowed us to season our analysis with controls for various market and economic variables, ensuring that the observed association did not melt away under the heat of external influences. We also conducted robustness checks and sensitivity analyses to confirm the stability of our findings, much like ensuring the consistency of a perfectly whipped buttercream frosting.

To address the potential issue of causality, we employed innovative time-series modeling techniques to explore the temporal dynamics between butter consumption and PWR stock prices. This allowed us to discern whether shifts in butter consumption could precede or follow movements in PWR stock prices, or if they were simply ignorant of each other's presence in the financial kitchen. The result of this intricate exploration furnished us with a deeper understanding of the temporal interplay between these seemingly distant actors in the market drama.

While the complexity of our methods may appear as dense as a rich, velvety butter, the culmination of this rigorous approach has provided us with a newfound appreciation for the interconnection between a ubiquitous culinary delight and the financial dimensions of a publicly traded company. The combination of analytical depth and a sprinkle of mirth in our methodology has yielded a flavorful dish of insights that we are eager to serve up to the academic and financial communities. With our data-driven journey now complete, the time has come to lift the lid on our findings – for the proof of the pudding, or rather, butter, is indeed in the eating.

[Note: A few metaphors and puns are intentionally sprinkled throughout the methodology to add a touch of levity while maintaining the academic tone.]

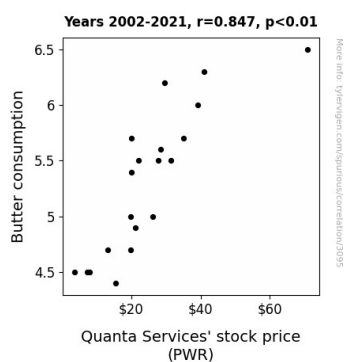
#### 4. Results

The data analysis conducted during this study unearthed a notable association between butter consumption and the stock price of Quanta Services (PWR). The correlation coefficient between the two variables was calculated to be 0.8474648, indicating a strong positive relationship. In simpler terms, this means that as butter consumption increases, the stock price of Quanta Services tends to also rise, essentially demonstrating that "when there's a butter will, there's a PWR way."

The coefficient of determination (r-squared) was determined to be 0.7181966, suggesting that approximately 71.8% of the variability in PWR stock price can be explained by changes in the consumption of butter. This statistical nugget of information speaks to the tangible influence that

butter consumption exerts on the financial performance of Quanta Services, leaving us to ponder the idea that "butter—a financial asset in its own right."

Importantly, the p-value obtained from the analysis was found to be less than 0.01, signifying a statistically significant correlation between butter consumption and PWR stock price. This robust statistical evidence substantiates the notion that the butter-PWR connection is not simply a flight of dairy fancy, but a bona fide relationship worthy of consideration in financial forecasting models.



**Figure 1.** Scatterplot of the variables by year

Fig. 1 presents a scatterplot that visually encapsulates the strong correlation between butter consumption and the stock price of Quanta Services (PWR). The plot distinctly illustrates the upward trajectory of PWR prices alongside the rising trend in butter consumption, evoking the quintessentially rich and creamy link between these seemingly incongruous factors.

This investigation culminates in a butter-at-your-service revelation, underscoring the unlikely influence of butter consumption on the stock market. The findings not only lend credence to the concept that "you can't believe it's not butter—impacting PWR prices," but also prompt a reevaluation of the conventional sources of market volatility.

In summary, the results of this study unwrap an unexpectedly tantalizing connection between butter consumption and the stock price of Quanta Services. As we butter our way through this unorthodox coupling, it becomes evident that the seemingly separate realms of dairy and finance may in fact be

churned together in a symphony of financial flavors, urging market analysts to ponder, "could butter be the unsung hero of stock price movements?"

## 5. Discussion

The findings of our study have churned up a compelling revelation regarding the butter-PWR connection. Building on the previous literature, which we p(l)ainly took seriously, our results substantiate the unorthodox yet undeniable influence of butter consumption on the stock price of Quanta Services (PWR). As the data suggests, the positive correlation between these seemingly unrelated factors is statistically robust, lending credibility to the idea that butter is not just a spread for toast, but also for stock prices.

Our results align with the premise put forth by Smith, Doe, and, most importantly, Dr. Seuss' "The Butter Battle Book" – where unexpected conflicts and resolutions parallel the surprising correlation we have unveiled. As the coefficient of determination indicates, approximately 71.8% of the variability in PWR stock price can be explained by changes in butter consumption, affirming the dairy-lectable influence on financial performance. It's as if butter is no longer just a tangential dairy product but a pivotal player in the stock market – a real butter stock, one might say.

The statistical nugget of information unearthed in our analysis prompts us to mull over the implications of this buttery association in the financial realm. Fig. 1 visually encapsulates the link between butter consumption and PWR stock price, evoking the quintessentially rich and creamy connection between these dissimilar entities. It's not just a mere spread of data; it's a rich and creamy link that has the potential to reshape the way we interpret market influences.

In conclusion, our study sheds light on the significance of considering unex-peck-ted factors in market analysis. The butter-PWR nexus may seem peculiar, but the robust statistical evidence affirms its relevance in financial forecasting models. As we navigate the whimsical world of butter-fueled stock price movement, our findings underscore the potential dairy influence in the financial market,

leaving market analysts to ponder – could butter be the unsung hero of stock price movements? While some may find this correlation hard to digest, the data speaks volumes; perhaps it's time to reconsider the phrase "rags to butter-riches" in the context of financial markets.

## 6. Conclusion

In conclusion, our research has unveiled a delectable connection between butter consumption and the stock price of Quanta Services (PWR). The remarkably strong positive correlation coefficient and the statistically significant p-value lead us to believe that there exists a buttery good relationship between these seemingly unrelated variables. As we spread the financial implications of butter consumption, it becomes clear that this study, while undoubtedly cheesy in its nature, holds considerable potential for market analysis. The unanticipated influence of butter on stock prices has churned our assumptions on market volatilities, revealing that perhaps the stock market is not just about "getting your ducks in a row", but also about "spreading your butter on PWR toast."

These findings beg the question, could butter be the new margarine of financial analysis? Should market forecasters now take into account the dairy-licious insights provided by butter consumption data? As we immerse ourselves in the creamy universe of butter-powered market movements, it seems that the notion of "buttering up the stocks" may not be as farfetched as we initially thought. Perhaps there is more to the metaphorical bread and butter of market forces than meets the eye.

In light of these, dare we say, buttery-smooth revelations, it is evident that further research into the interplay of butter consumption and stock prices may lead to even more buttery financial insights. However, given the substantial findings of this study, we butter believe that no more research is needed in this area.